

latter swims with its small, and the former, *Vorticella*-like, with its large end foremost.

There is no lorica in *Urocentrum*; and, according to Prof. Clark, its surface, excepting the crown, is scattered over with small cilia, in which it further differs from *Peridinium*—where, on the other hand, there is a distinct lorica, and cilia *only* on the anterior border of the cinctum.

These are some of the chief differences between the two organisms, of which the most distinguishing are first named.

It is not my object here to go further into the detail of *Urocentrum Turbo*, nor am I prepared to enter the lists with Prof. Clark respecting its organization.

My observations were for the most part made cursorily, on a supply of this animalcule which I found here in a freshwater pool partly filled with decayed leaves, in July last; but, seeing that the vesicula (contracting vesicle) was particularly active, I availed myself of the opportunity of watching it carefully with reference to the question whether it threw back into the body or discharged externally its contents, and noted down—(1) that from a simple globular form it became surrounded with a chaplet of ten (?) small globular sinuses; (2) on these disappearing, the vesicula became still more enlarged, contracted, and in its turn disappeared; and (3) that immediately after this, one or two vesicles became visible, which, breaking into each other, gave place to the globular form of the vesicula again, to be followed by the same series of changes, and so on,—still further convincing me that the contents of the vesicula do not return to the body through the sinuses, but are probably ejected from it through the cuticula direct, or through some excretory channel—in this instance close to the posterior extremity, where the vesicula and probably the anal orifice also, are situated.

*Urocentrum* was also formerly confounded with *Cercaria* by Nitzsch and Bory; but the improved quality of our modern microscopical instruments no longer admits of such a mistake.

Budleigh Salterton, Devon.  
Nov. 7, 1865.

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XLV.—*Descriptions of new Genera and Species of Gallerucidæ.*  
By J. S. BALY, F.L.S.

Subfam. HALTICINÆ.

Genus DIAMPHIDIA, Gerst.

*Diamphidia vittatipennis.*

*D. oblongo-ovata*, convexa, sordide fulva, subopaca, antennis, plaga frontali, oculis, thoracis maculis septem (4 . 3 dispositis), scutello,

genibus, tibiis tarsisque nigris; elytris crebre punctatis, singulatum puncto apicali vittisque duabus, una submarginali, plerumque puncto apicali confluyente, alteraque subsuturali, ante apicem desinente, basi dilatata, nigris.

Long.  $4\frac{3}{4}$  lin.

*Hab.* Damara Land, South Africa.

Head coarsely punctured; apex of jaws and a quadrangular patch between the eyes black: antennæ robust, slightly compressed, not serrate. Thorax more than twice as broad as long, coarsely punctured; on the surface are seven black patches, which resemble in shape and are arranged in a similar way to those on the thorax of *D. flabellicornis*, the front row consisting of four spots, of which the outer two are minute; the hinder row is formed of three patches, the outer two of which are large and irregular, the middle small and oblong.

*Diamphidia flexuosa.*

*D. robusta*, convexa, flava, subnitida, antennis, verticis maculis duabus, thoracis maculis septem (4.3 dispositis), scutello, genibus, tibiis, tarsis pleurisque nigris; elytris postice paullo ampliatis, crebre punctatis, singulis apice plaga transversa subapicali, fasciisque latis flexuosis duabus, una ante, altera vix pone, medium dispositis, nigris.

Long.  $6\frac{1}{2}$  lin.

*Hab.* Zulu country, Port Natal.

Very closely allied to *D. ornata*, but larger and more robust than that insect; antennæ similar in form; sides of the thorax more regularly rounded.

GENUS *PODONTIA*, Dalman.

*Podontia evanida.*

*P. oblongo-ovata*, convexa, subtus pallide fulvo-picea, nitida, supra sordide flava; thorace remote punctato, pallide rufo-piceo variegato, apice utrinque longitudinaliter sulcato; elytris sat profunde punctato-striatis, punctis pallide piceis, interspatiis ad apicem convexis, puncto humerali nigro, limbo inflexo nigro-tessellato; femoribus posticis valde incrassatis.

Long.  $3\frac{1}{2}$ –4 lin.

*Hab.* Damara Land, South Africa.

Larger, narrower, and more parallel than *P. stolidia*, with which insect it otherwise agrees very closely.

*Podontia marmorata.*

*P. ovata*, convexa, pallide picea, nitida; antennis extrorsum infuscatis; thorace minute granuloso, tenuiter punctato, apice utrinque longitudinaliter impresso; elytris flavis, rufo-piceo marmoratis,

profunde punctato-striatis, punctis piceis, interstitiis apicem versus convexis, limbo inflexo piceo-tessellato; scutello rufo-piceo; femoribus posticis valde incrassatis.

Var. A. Elytris rufo-piceis, flavo irroratis.

Mas. Cedeagus vix curvatus, apice ovatus, apice ipso subacuminato. Long. 3-3½ lin.

Hab. Port Natal.

More ovate than *P. evanida*; very similar in form and size to *P. stolidia*: from the latter species it may be known by the coarser and rather more distant punctures on the elytra.

*Podontia nigrotessellata.*

*P. ovata*, convexa, pallide picea, nitida; thorace subremote punctato, basi biimpresso, antice utrinque longitudinaliter sulcato; elytris sordide fulvis, sat profunde punctato-striatis, punctis piceis, interspatiis remote nigro tessellatis, ad apicem convexiusculis; femoribus posticis valde incrassatis.

Mas. Cedeagus vix curvatus, lateribus parallelis, apice lanceolato-ovato.

Long. 2¼-2¾ lin.

Hab. Port Natal.

The much smaller size and the different coloration of the elytra will without difficulty distinguish this species from its congeners.

*Podontia reticulata.*

*P. anguste oblonga*, convexa, pallide piceo-fulva, nitida, antennis extrorsum infuscatis, capite scutelloque rufo-piceis; thorace piceo-marmorato, apice utrinque longitudinaliter impresso; elytris flavis, rufo-piceo reticulatis, profunde punctato-striatis, punctis piceis, limbo inflexo piceo-tessellato; femoribus posticis valde incrassatis.

Long. 3½ lin.

Hab. South Africa.

Larger and more parallel than *P. stolidia*, more convex than *P. evanida*. I only know a single specimen of this species.

*Podontia flava.*

*P. elongata*, parallela, convexa, flavo-nitida; thorace basi biimpresso, ad latera foveolato, utrinque infra medium ad apicem longitudinaliter sulcato; elytris ante medium gibbosis, sat fortiter punctato-striatis, interspatiis ad apicem convexiusculis; femoribus posticis modice incrassatis.

Long. 6 lin.

Hab. Sarawak.

This species may be at once known from *P. lutea*, Oliv., by the unicolorous body and legs, as well as by the coarser punctuation of the elytra.

*Podontia Dalmani.*

*P. elongata*, parallela, postice vix attenuata, pallide picca, nitida; thorace basi biimpresso, disco medio longitudinaliter sulcato, utrinque late foveolato, antice utrinque (a margine apicali ad foveam lateralem) longitudinaliter impresso; elytris ante medium gibbosis, fortiter punctato-striatis, nigro-piceis, flavo irroratis, singulatim plaga basali, fascia lata prope medium alteraque ante apicem flavis, punctis super partes flavescentes piceis; femoribus posticis modice incrassatis.

Long. 6 lin.

*Hab.* Lombok, Siam.

*Podontia rufo-castanea.*

*P. subelongata*, convexa, subtus cum antennis (his basi excepta) nigra, nitida, corpore supra et thorace infra rufo-castaneis; thorace basi obsolete biimpresso; disco utrinque profunde foveolato; elytris ante medium gibbosis, distincte sed tenuiter punctato-striatis; femoribus posticis modice incrassatis.

Long. 6 lin.

*Hab.* India.

This and the preceding insect were originally described by me as varieties of *P. 14-punctata* (Journ. Ent. i. p. 451). Subsequent investigation, however, has convinced me that they are entitled to the rank of distinct species.

*Podontia congregata.*

*P. oblonga*, convexa, pallide rufo-piceo, nitida, capite elytris que fulvis; his ante medium gibbosis, punctato-striatis, maculis numerosis rufo-piceis, præsertim ad latera et apud suturam congregatis, ornatis; thorace ad latera foveolato, basi breviter bisulcato, ante medium utrinque longitudinaliter impresso; femoribus posticis modice incrassatis.

Long.  $5\frac{1}{2}$  lin.

*Hab.* —?.

Subfam. GALLERUCINÆ.

Genus DIRCEMA, Clark.

The Rev. H. Clark, in his description of *Dircema cinctipenne*, has included five or six closely allied but distinct species: their diagnoses (together with those of several others entirely new) I have given below. The males of *Dircema* may be known from having the apices of the intermediate tibiæ armed with a short tooth or acute process; both sexes have the anal segment of the abdomen notched; in the ♂ this notch is large and angular, its extreme apex being impressed with a distinct fovea; in the ♀ the notch is smaller, somewhat variable in shape, although usually linear, and the apical fovea is obsolete.

*Dircema discoidale*.

*D. elongatum*, convexum, dorso subdeplanatum, flavum, nitidum, vertice, fronte, mandibulis antennisque nigris, his apice sordide albidis; thorace longitudine plus duplo latiore, lateribus ante medium modice ampliatis, transversim sulcato, utrinque foveolato, dorso fere glabro, remote punctato, nitido, nigro, marginibus basali et laterali flavis; elytris thorace multo latioribus, fere parallelis, convexis, dorso subdepressis, granulosis, metallico-cyaneis, subnitidis, pube brevissima vestitis, sutura anguste margineque flavis; femoribus quatuor anticis dorso fusco-lineatis.

*Mas.* Edeagus basi incrassatus, curvatus, lateribus parallelis, apice ovato-lanceolatus, apice ipso producto, recto, truncato.

Long. 5 lin.

*Hab.* Nauta, Peru.

Forehead impressed with a large obovate depression, coarsely punctured, sparingly clothed with coarse hairs; eyes ovate-rotundate; four upper joints of antennæ pale fulvous. Apical border of thorax concave, entire, side-margin moderately dilated in front, nearly straight and parallel behind, hinder angles acute; disk shining, sparingly clothed with suberect hairs; transverse excavation broad, less deeply impressed than in most of the other species; it is, however, rendered deeper on either side by a large roundish fovea, which is placed about halfway between the middle and the lateral border. Elytra shorter than in the other species, much broader than the thorax, depressed above.

My collection contains two male specimens of this species.

*Dircema laticolle*.

*D. elongatum*, parallelum, convexum, fulvo-flavum, nitidum, capite (facie inferiore excepta) nigro, antennarum articulis tribus ultimis sordide flavis; thorace brevi, longitudine triplo latiore, lateribus ante medium late explanatis, disco minus crebre, medio subremote punctato, pube depressa nigra sparsius vestito, profunde transversim excavato, pone sulcum distincte elevato; elytris nigris, opacis, rude granulosis, pube adpressa fusca aut nigra vestitis, sutura margineque flavis; pedibus nigris, femoribus basi et infra fulvis.

*Fcem.* Abdominis segmentum anale apice obtuse angulatum, medio vix emarginatum.

Long.  $3\frac{1}{2}$ – $4\frac{2}{3}$  lin.

*Hab.* Amazons.

Forehead depressed, rugulose, vertex nitidous; epistome impressed with a deep longitudinal groove, which extends from the apical border to the encarpæ, its upper half very strongly marked; three upper joints of antennæ obscure fusco-fulvous. Thorax short, quite thrice as broad as long; apical margin concave,



often slightly emarginate in the middle; lateral margin broadly dilated in front, hinder portion subparallel, hinder angles acute, slightly produced; upper surface smooth and nitidous, somewhat sparingly clothed with pale hairs; transverse sulcation deeply impressed, the surface of the thorax behind its posterior margin thickened and distinctly raised; in the centre of this raised surface is a more or less distinct longitudinal groove. Elytra broader than the thorax, nearly subcylindrical in the ♂; rather broader and more depressed in the ♀.

*Dircema cinctipenne*, Clark.

Ann. & Mag. Nat. Hist. Oct. 1865, p. 263.

*D. elongatum*, parallelum, convexum, flavum, nitidum, capite (facie inferiore excepta) nigro, antennis apice sordide flavis aut albidis; thorace brevi, longitudine fere triplo latiore, lateribus ante medium late explauatis, disco ruguloso, pube adpressa sat dense vestito, medio longitudinaliter canaliculato, profunde transversim excavato, pone sulcum distincte elevato, utrinque plaga magna nigra ornato; elytris opacis, granulosis, pube depressa fusca aut nigra dense vestitis, nigro-viridibus aut obscure viridi-metallicis, sutura margineque flavis; pedibus fusco-nigris, rarius obscure flavis, fusco lineatis.

*Mas.* Cedeagus basi incrassatus, curvatus, anguste lanceolatus, apice producto, subacuto, recurvato.

*Fœm.* Abdominis segmentum anale apice modice incisum.

Long. 4-4½ lin.

*Hab.* Amazons.

Head short; front clothed with adpressed hairs, with a more or less distinctly defined ovate depression, which is more or less finely rugulose; vertex nitidous; face grooved as in *D. laticolle*; three or four upper joints of antennæ yellowish white. Thorax three times as broad as long; apical margin concave, sometimes slightly notched in the middle; side margins broadly dilated in front, nearly straight and slightly diverging posteriorly, hinder angles acute; disk impressed in a similar manner to that of *D. laticolle*, but rugose-punctate, more closely covered with pubescence. Elytra similar in form to those of *D. laticolle*, dark metallic green, subopaque.

*Dircema pulchrum*.

*D. elongatum*, pallide flavum, nitidum; fronte, vertice antennisque nigris; his apice albis, articulo basali flavo; thorace brevi, longitudine triplo latiore, lateribus late ampliatis, disco profunde transversim excavato, minus crebre punctato, sparse pubescente, utrinque plaga nigra ornato; elytris pube adpressa brevi vestitis, subopacis, rugosis, metallico-viridibus, margine suturaque flavis; femoribus dorso nigro-piceis; tibiis ad apicem tarsisque fuscis.

*Mas.* Edeagus apice lanceolato-ovatus, lateribus ad apicem bisinuatis, apice ipso vix producto, truncato, recurvato.

*Fœm.* Abdominis segmentum anale utrinque foveolatum, apice angulato sat profunde inciso; thorace toto flavo; antennis totis, femoribus dorso, tibiis tarsisque nigris.

Var. A. (*fœm.*). Elytris obscure nigro-purpureis.

Long. 5-6 lin.

*Hab.* Nauta, Upper Amazons.

This species, although of larger size and brighter coloration, very closely resembles *D. laticolle*, more especially in the form and punctuation of the thorax; the ♀ may be known by the linear notch at the apex of the abdomen, the ♂ by the paler legs and the brighter colour of the elytra. Front with a large semi-ovate rugulose depression; vertex nitidous.

I possess three specimens of this species, one ♂, two ♀.

#### *Dircema columbicum.*

*D. elongatum*, parallelum, sordide flavum, nitidum, vertice, fronte (hoc maculam flavam includente), antennis, femoribus dorso, tibiis tarsisque nigris; thorace longitudine duplo latiore, lateribus ante medium modice ampliatis, disco modice sed late transversim excavato, crebre punctato, pube adpressa dense vestito, utrinque macula ovata nigra ornato; elytris metallico-viridibus, subopacis, pube subdepressa brevi vestitis, margine suturaque flavis.

*Fœm.* Abdominis segmentum anale apice obtuse angulatum, breviter incisum.

Long. 6 lin.

*Hab.* Bogotá.

I only know a single specimen of the present species (a ♀). It may be easily separated from all its congeners by the peculiar form of the thorax; this part is less transverse, being only about twice as broad as long; its sides in front are less dilated, and the upper surface much less deeply excavated; the hinder angles are produced into an obtuse tooth. The elytra are much broader than the thorax, somewhat depressed above. Face long, clothed with pale hairs; vertex and front black, the latter nearly plane, marked in the centre with a transverse yellow patch.

#### *Dircema lætum.*

*D. elongatum*, parallelum, convexum, dorso subdepressum, sordide fusco-flavum, nitidum, vertice antennisque nigris, illo rugoso, his basi et apice flavis; thorace longitudine vix duplo latiore, lateribus ante medium modice ampliatis, disco late transversim excavato, crebre rugoso, pube brevi adpressa dense vestito, sordide flavo, utrinque plaga magna nigra ornato; elytris rugoso-granulosis, pube adpressa brevi fusco-fulva dense vestitis, viridi-æncis, sutura

marginibusque anguste flavis; pedibus nigris, femoribus basi et infra sordide flavis.

*Mas.* Cedeagus basi incrassatus, curvatus, parallelus, ad apicem acute angulatus, apice producto, truncato, recurvato.

*Fcem.* Abdominis segmentum anale apice obtuse angulatum, sat profunde incisum.

Long.  $4\frac{1}{2}$ –5 lin.

*Hab.* Banks of the Napo, Ecuador.

Thorax rather less broadly dilated than in *D. cinctipenne*, its upper surface much less deeply excavated. Elytra pale, almost sea-green, fusco-sericeous, broader and more depressed than in *D. cinctipenne*; more nearly approaching in habit to *D. columbicum*, but from that species the smaller size and differently formed thorax will separate it; three upper joints of antennæ yellowish white, the remainder more or less fulvous beneath.

I obtained three specimens of this pretty species (two ♂ and one ♀) from the late Mr. H. Cuming, who received them from one of his correspondents in Ecuador.

*Dircema sordidum.*

*D.* elongatum, parallelum, convexum, fulvo-fuscum aut sordide fulvum, nitidum, femoribus dorso, tibiis tarsisque piceis, vertice fronteque viridi-nigris; antennis nigro-piceis, basi externa et apice fulvis; thorace longitudine triplo latiore, lateribus ante medium late explanatis; disco rugoso, profunde transversim excavato, pone sulcum elevato, pube adpressa dense obsito, nigro, vitta lata centrali et margine apicali dilatato flavis; elytris rude granulosis, obscure metallico-viridibus, pube adpressa fusca dense vestitis, sutura margineque obsolete flavo-marginatis.

*Fcem.* Abdominis segmentum anale apice obtuse angulatum, semicirculariter incisum.

Long. 4 lin.

*Hab.* Ega and Nauta, Upper Amazons.

Very similar in form, both of thorax and elytra, to *D. cinctipenne*; easily distinguished from that insect by the coarser and closer pubescence of the upper surface, and by the extremely narrow and almost obsolete fulvous margination of the elytra; the notch on the apex of the anal segment of the abdomen in the ♀ is semicircular, instead of linear, as in *D. cinctipenne*.

I know two specimens of the species, both ♀. The specimen from Ega has the scutellum dark fuscous.

*Dircema modestum.*

*D.* elongatum, parallelum, convexum, dorso subdeplanatum, flavum, nitidum, verticis macula bilobata antennisque nigris, his apice flavo-albis; thorace longitudine fere triplo latiore, lateribus ante



medium sat late ampliatis, disco profunde transversim sulcato, pube adpressa sparse obsito, nitido, subremote punctato; elytris convexis, dorso subdepressis, rude granulosis, subremote punctatis, fusco-sericeis, murinis vel pallide viridibus, opacis; genibus, tibiis, tarsisque nigris.

*Mas.* Cedeagus basi incrassatus, curvatus, parallelus, ad apicem ovato-lanceolatus, apice ipso producto, capitato.

*Fœm.* Abdominis segmentum anale apice obtuse angulato, breviter angulariter inciso.

Long. 5 lin.

*Hab.* Magdalena River, Columbia.

Broader and flatter above than *D. cinctipenne*, closely resembling *D. nigripenne*, Fab., in form and unicolorous elytra. From this latter species it may be at once known by the bilobate black patch on the vertex, as well as by the paler elytra; the males of the two species differ also in the form of the cedeagus; the apex of this organ, instead of being capitate as in the insect before us, is produced in *D. nigripenne* into a broad slightly recurved process, the extremity of which is truncate and slightly notched, the lobes of the notch being also reflexed; the females may be separated by the difference in the apical notch of the last abdominal segment: in *D. nigripenne* this notch is linear, a longitudinal groove extending from its apex to the base of the segment; in *D. modestum* the notch is short and slightly angular, the longitudinal groove being entirely obsolete. The head of *D. modestum* is rather longer than in any of the other species described in the present paper; the front is impressed with the usual semioval space.

#### GENUS HYPHÆNIA.

*Corpus* angustatum, parallelum, modice convexum. *Caput* exsertum; *facie* perpendiculari; *antennis* filiformibus, ♂ sæpe corpore longioribus, gracilibus; articulis primo curvato, a basi ad apicem incrassato, secundo brevi, cæteris cylindricis, subtus in ♂ sæpe setis erectis vestitis, singulis longitudine primo fere æqualibus; secundo, tertio quartoque interdum subtus compressis et dilatatis; ♀ corpore paulo brevioribus, articulis nunquam setiferis; *oculis* magnis, prominulis; *palpis* maxillaribus ovatis, apice acutis. *Thorax* transverso-quadratus, lateribus rectis, angulis singulatim tuberculo setifero armatis; dorso subdeplanato, medio transversim sulcato. *Elytra* thorace paulo latiora, elongata, parallela, confuse punctata. *Pedes* graciles, subelongati; *coxis* anticis erectis, contiguis; *femoribus* posticis non incrassatis; *tibiis* omnibus apice muticis; *tarsorum* posteriorum articulo primo duobus sequentibus conjunctis æquali; *unguiculis* appendiculatis. *Prosternum* fere obsoletum.

Type *Hyphænia* (*Luperus*) *pilicornis*, Motsch. Birmah.